



Material Safety Data Sheet

LA2250
Caustic Potash 45% Solution

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: LA2250

Product Name: Caustic Potash 45% Solution

Synonyms: Caustic potash ; Potassium hydrate

Chemical Family: None Known

Application: Manufacture of glass. Industrial cleaners. Chemical intermediate. Petroleum industries.

Distributed By:

Univar Canada Ltd.
9800 Van Horne Way
Richmond, BC
V6X 1W5

Prepared By: The Safety, Health and Environment Department of Univar Canada Ltd.

Preparation date of MSDS: 15 February 2012

Telephone number of preparer: 1-866-686-4827

24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | Percentage (W/W) | LD50s and LC50s Route & Species: |
|----------------------------------|------------------|----------------------------------|
| Water 7732-18-5 | Balance | Oral LD50 (Rat) >90 mL/kg |
| Potassium Hydroxide 1310-58-3 | 45-52 | Oral LD50 (Rat) = 214 mg/kg |

Note: No additional remark.

3. HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Eye Contact: Corrosive. May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

Skin Contact: Corrosive. Causes severe skin irritation with tissue destruction. Causes skin burns which may not be immediately painful or visible.

Inhalation: Inhalation of mist may cause damage to nasal and respiratory passages. Irritation may lead to chemical pneumonitis and pulmonary edema.

Ingestion: Causes burns to the mouth, throat and stomach. Symptoms may include nausea, headache, and vomiting. Ingestion may cause gastrointestinal irritation or ulceration.

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

Inhalation: If symptoms are experienced, remove source of contamination or move victim to fresh air. If symptoms persist, get medical attention. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. In situations where administering oxygen is appropriate, first aiders must be trained in the safe use and handling of oxygen. It is preferable to administer oxygen under a doctor's supervision or advice. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately. Immediate medical assistance is required.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Notes to Physician: Treatment based on sound judgment of physician and individual reactions of patient. If burn is present, treat as any thermal burn, after decontamination. Emesis should be initiated unless there is evidence of burns of the oral mucosa. Gastric lavage may be advisable.

5. FIRE FIGHTING MEASURES

Flash Point: None.

Flash Point Method: Not applicable.

Autoignition Temperature: Not available.

Flammable Limits in Air (%): Not Available.

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Special Exposure Hazards: This material is corrosive to all human tissue. Move containers from fire area if you can do it without risk. Use water spray to cool containers. Under fire conditions, toxic, corrosive fumes are emitted. It will react violently with many organic chemicals, especially nitro carbons and chlorocarbons. Caustic potash reacts with zinc, aluminum, tin, and other active metals liberating flammable hydrogen gas. Dilution with water evolves large amounts of heat.

Hazardous Decomposition/Combustion Materials (under fire conditions): Oxides of potassium.

Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, INSTABILITY 1

HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, REACTIVITY 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.

Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed. Consult local authorities.

Procedure for Clean Up: Small spills: soak up with absorbent material and scoop into containers. Large spills: prevent contamination of waterways. Dike and pump into suitable containers. Clean up residual with absorbent material, place in appropriate container and flush with water. This material is alkaline and may raise the pH of surface waters with low buffering capacity.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing mist or vapour. Do not ingest. Wash thoroughly after handling. When mixing, slowly add to water to minimize heat generation and spattering. Spilled material may be slippery.

Storage: Keep containers tightly closed. Tanks must be diked. Place away from incompatible materials. Protect against moisture, water and physical damage. Store between 60 - 120 °F (15 - 48.8 °C). Suitable storage material/coatings: Steel, Plastic, PE (when dry). Unsuitable: Aluminum or galvanized containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations where vapours or mists may be generated.

Respiratory Protection: Not normally needed. If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator. In misty atmospheres, use an approved mist respirator.

Gloves:

Rubber gloves. Butyl rubber gloves. Nitrile gloves. Neoprene gloves. Polyvinylchloride (PVC) gloves.

Skin Protection: Apron, coveralls and/or other resistant protective clothing. Rubber apron. Rubber boots.

Eyes: Chemical safety goggles and/or full face shield to protect eyes and face, if product is handled such that it could be splashed into eyes.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

| Ingredients | Exposure Limit - ACGIH | Exposure Limit - OSHA | Immediately Dangerous to Life or Health - IDLH |
|---------------------|-----------------------------|-----------------------------|--|
| Water | Not available. | Not available. | Not Available. |
| Potassium Hydroxide | 2 mg/m ³ Ceiling | 2 mg/m ³ Ceiling | Not Available. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Viscous Liquid.

Colour: Colourless

Odour: Odourless

pH >14

Specific Gravity: 1.450 @ 20 °C

Boiling Point: 132°C /270°F

Freezing/Melting Point: -28°C / -20°F

Vapour Pressure: 2 mm Hg @ 20°C

Vapour Density: Not Available.

% Volatile by Volume: 50%

Evaporation Rate: Slightly less than water

Solubility: Completely soluble.

VOCs: Not Available.

Viscosity: Not Available.

Molecular Weight: 56.1

Other: Not Available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Exposure to air can form potassium carbonate. Incompatible materials.

Materials to Avoid: Acids. Metals and alloys. Zinc. Tin. Aluminum. Organic chemicals. Nitrocarbons, halocarbons.

Contact with reactive metals may produce flammable hydrogen gas.

Hazardous Decomposition Products: Flammable hydrogen gas.

Additional Information:

Trichloroethylene will react to form Dichloroethylene, which is spontaneously flammable.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Causes burns to the mouth, throat and stomach. Symptoms may include nausea, headache, and vomiting. Ingestion may cause gastrointestinal irritation or ulceration.

Skin Contact: Corrosive. Causes severe skin irritation with tissue destruction. Causes skin burns which may not be immediately painful or visible.

Inhalation: Inhalation of mist may cause damage to nasal and respiratory passages. Irritation may lead to chemical pneumonitis and pulmonary edema.

11. TOXICOLOGICAL INFORMATION

Eye Contact: Corrosive. May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

Additional Information: May cause asthma, lung diseases and skin diseases. In general, chronic effects are due to long term irritation. This material may cause dermatitis on the skin, or recurrent corneal ulceration and visual disturbances. In rare cases reports have noted long term inhalation causes bronchial inflammatory reaction or obstructive airway dysfunction.

Acute Test of Product:

Acute Oral LD50: Not Available.

Acute Dermal LD50: Not Available.

Acute Inhalation LC50: Not Available.

Carcinogenicity:

| Ingredients | IARC - Carcinogens | ACGIH - Carcinogens |
|---------------------|--------------------|---------------------|
| Water | Not listed. | Not listed. |
| Potassium Hydroxide | Not listed. | Not listed. |

Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: Not Available.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

| Ingredients | Ecotoxicity - Fish Species Data | Acute Crustaceans Toxicity: | Ecotoxicity - Freshwater Algae Data |
|---------------------|--|-----------------------------|-------------------------------------|
| Water | Not Available. | Not Available. | Not Available. |
| Potassium Hydroxide | LC50 96 h (Gambusia affinis) 80 mg/L static | Not Available. | Not Available. |

Other Information:

May be harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: POTASSIUM HYDROXIDE, SOLUTION

DOT Hazardous Class 8

DOT UN Number: UN1814

DOT Packing Group: II

DOT Reportable Quantity (lbs): Not Available.

Note: No additional remark.

Marine Pollutant: No.

TDG (Canada):

TDG Shipping Name: POTASSIUM HYDROXIDE, SOLUTION

Hazard Class: 8

UN Number: UN1814

Packing Group: II

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14. TRANSPORT INFORMATION

Note: No additional remark.

Marine Pollutant: No.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Note: Not available.

U.S. Regulatory Rules

| Ingredients | CERCLA/SARA - Section 302: | SARA (311, 312) Hazard Class: | CERCLA/SARA - Section 313: |
|---------------------|----------------------------|-------------------------------|----------------------------|
| Water | Not Listed. | Not Listed. | Not Listed. |
| Potassium Hydroxide | Not Listed. | Listed | Not Listed. |

California Proposition 65: Not Listed.

MA Right to Know List: Listed.

New Jersey Right-to-Know List: Listed.

Pennsylvania Right to Know List: Listed.

WHMIS Hazardous Class:

D1B TOXIC MATERIALS

E CORROSIVE MATERIAL



16. OTHER INFORMATION

Additional Information:

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Disclaimer:

NOTICE TO READER:

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END OF MSDS